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Salix dolichostyla Seemen, a Correct Name for *S. jessoensis* Seemen (Salicaceae)

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Salix jessoensis Seemen is a synomym of *S. dolichostyla* Seemen. New combinations for the infraspecific taxa and names of hybrids of *S. dolichostyla* are presented. *Salix dolichostyla* has been recorded from the Russian Far East, but is endemic to Japan. Lectotype of *S. jessoensis* is designated.

Key words: hybrids, Japan, new names, Salicaceae, *Salix*.

Salix dolichostyla Seemen has been regarded as a synonym of *S. eriocarpa* Franch. & Sav. by Koidzumi (1913), Ohwi (1953, 1965a, 1965b), Chou et al. (1984), Fang et al. (1999) and Ohashi (2000) or as a synonym of *S. pierotii* Miq. by Skvortsov (1968), Kitamura and Murata (1979), Voroschilov (1982) and Nedoluzhko (1995). However, Seemen (1901) clearly described the yellow anthers of the species in the original description and in Salices Japonicae (1903), while *S. eriocarpa* and *S. pierotii* have red anthers. Both species are accommodated in section Subalbae Koidz. of subgenus Salix in which the Japanese species are divided by difference of the anther color before dehiscence into two groups. *Salix eriocarpa* and *S. pierotii* have red anthers, while *S. babylonica* L., *S. matsudana* Koidz., *S. jessoensis* Seemen and *S. yoshinoi* Koidz. have yellow anthers (Ohashi 2001). Skvortsov (1968) treated *S. dolichostyla, S. eriocarpa* and *S. jessoensis* as synonyms of *S. pierotii,* although he characterized *S. pierotii* in having bright orange anthers when alive. *Salix dolichostyla* had been adopted in floras of the Russian Far East (Nasarov 1936, Voroschilov 1966, Vorobiev et al. 1966), but following the work of Skvortsov (1968) the name has been replaced with *S. pierotii* (Czerepanov 1973, Voroschilov 1982, Nedoluzhko 1995). These treatments may indicate that true *S. dolichostyla* is not distributed in the Russian Far East. *Salix dolichostyla* was described from northernmost Honshu, Aomori, Japan and is at present endemic to Japan.

Ohashi (2001) regarded *Salix dolichostyla* Seemen as identical with *S. jessoensis* Seemen, but treated the name of the former as a synonym of the latter, although it was published two years earlier than the latter. The correct nomenclature of the species and its infraspecific taxa follows:

Salix dolichostyla Seemen in Bot. Jahrb. Syst. **30**: Beibl. **67**: 39 (1901) [Type: Japan. Aomori. Faurie 1260 (B–syntypes, male and female specimens were recorded by Hao 1936)] & Salic. Jap.: 26, tab. 2 (1903); Hao in Repert. Spec. Nov. Regni Veg. Beih. **93**: 65 (1936).

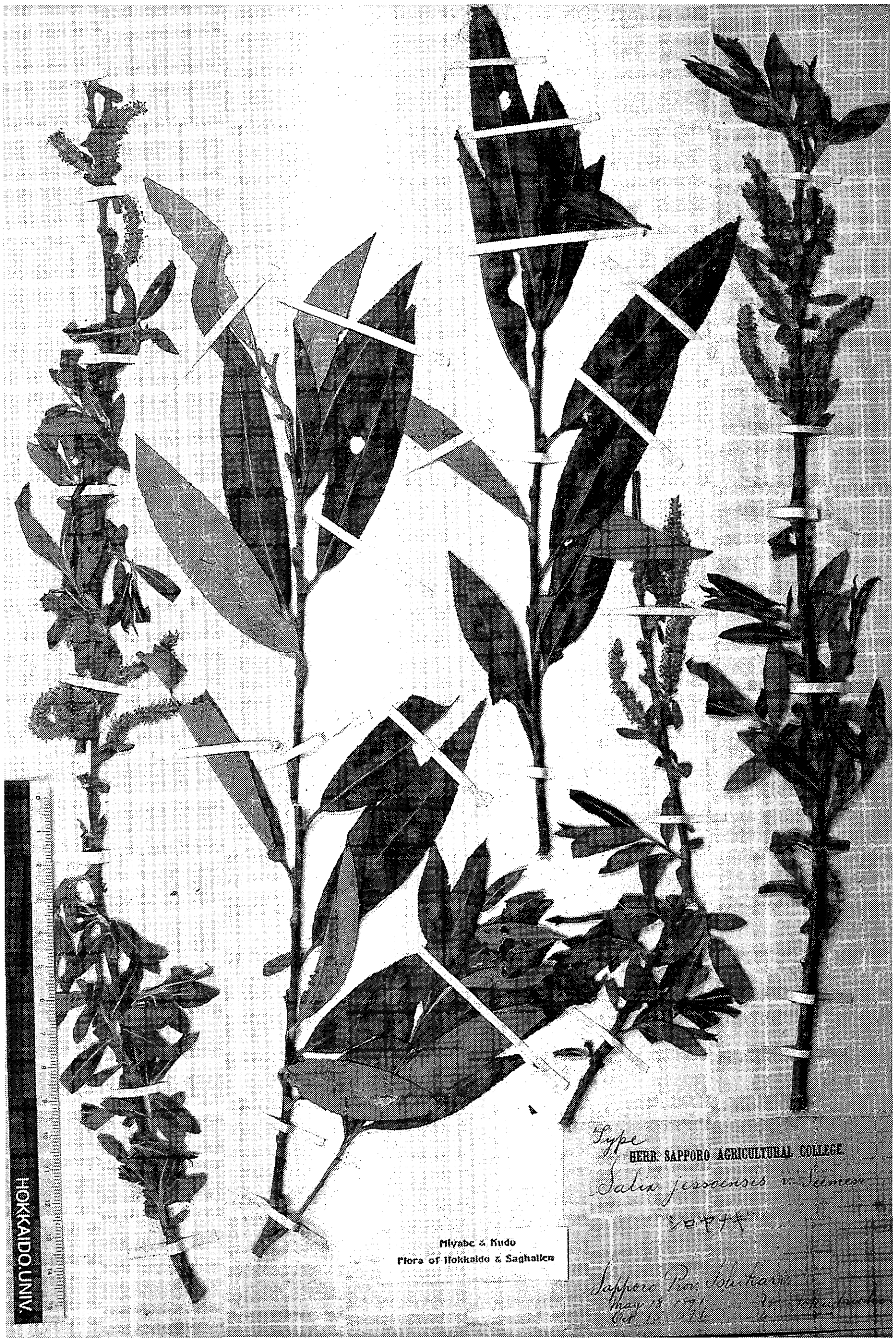
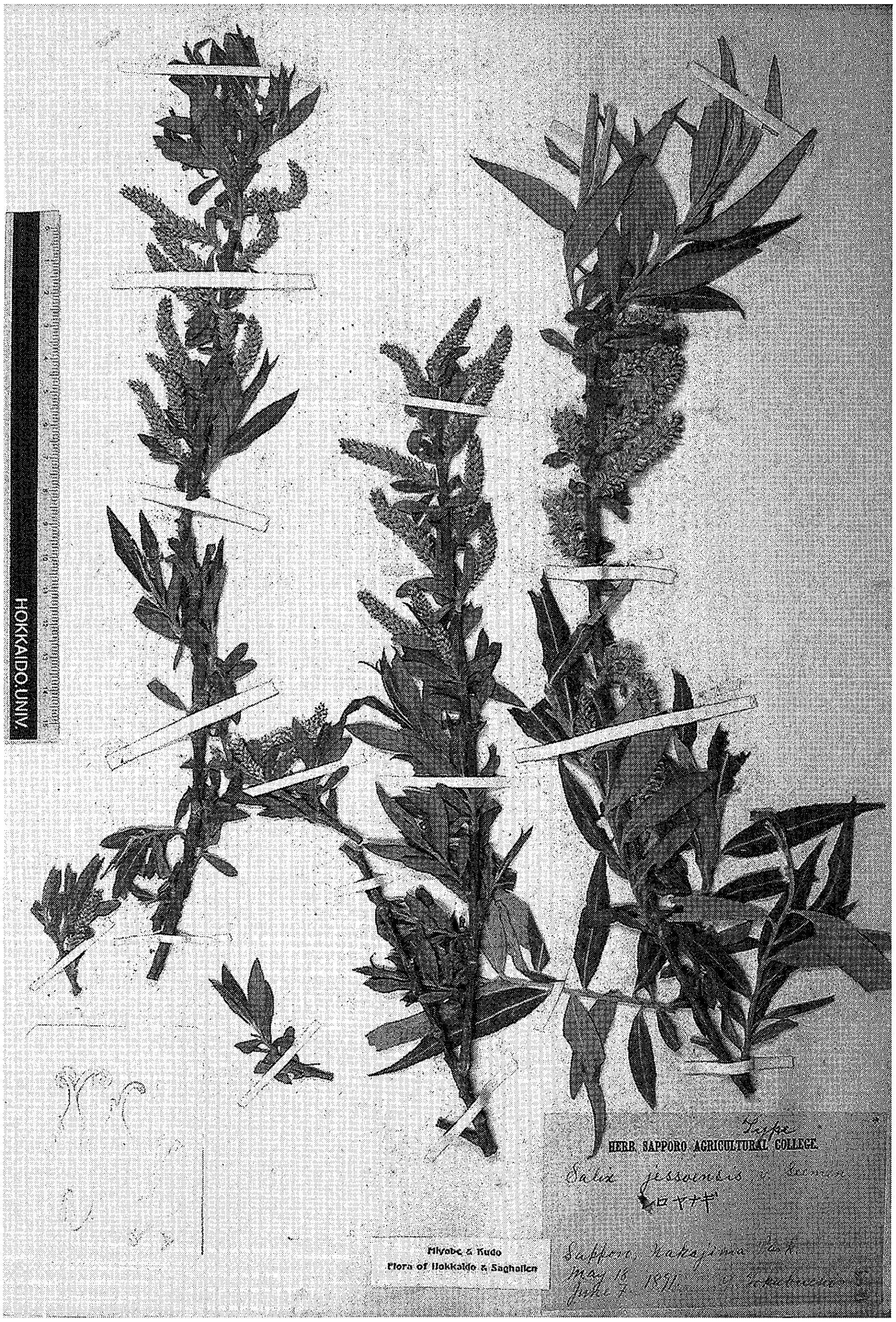

HOKKAIDO UNIV.
Miyabe & Kudo
Flora of Hokkaido & Saghalien
Type
HERB. SAPPORO AGRICULTURAL COLLEGE.
Salix jessoensis v. Seemen
シロヤナギ
Sapporo Prov. Ishikari
May 18 1891
Oct 15 1891

Fig. 1. Lectotype of *Salix jessoensis* Seemen in SAPS. The left one and right two branches having male catkins (collected on 18 May 1891) are selected as the lectotype in the present study. The two leafy branches are syntypes of *S. jessoensis* Seemen (collected on 15 Oct. 1891).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Type
HERB. SAPPORO AGRICULTURAL COLLEGE.
Salix jessoensis v. Seemen
ドロヤナギ
Sapporo, Nakajima Park
May 18 1891
June 7
Miyabe & Kudo
Flora of Hokkaido & Saghalien

Fig. 2. Two syntypes (SAPS) of *Salix jessoensis* Seemen with female (branches except the right one collected on 18 May 1891) and fruit catkins (right one branch collected on 7 June 1891).

Salix jessoensis Seemen, Salic. Jap.: 31, tab. 3 (1903) [Lectotype (designated here): Japan. Hokkaido. Sapporo. Tokubuchi s. n. 18 May 1891. Three branches with male inflorescences (SAPT)]; H. Ohashi in Sci. Rep. Tohoku Univ. ser. 4, Biol. **40**: 318 (2001), p. p., excl. *S. yoshinoi* Koidz., *S. pseudoyoshinoi* Koidz.; H. Ohashi & Yonek. in J. Jpn. Bot. **81**: 38 (2006).

Salix dolichostyla var. *hirosakensis* H. Lév. & Vaniot in Repert. Spec. Nov. Regni Veg. **3**: 22 (1907); [Type: Japan. Honshu. Hirosaki. secus aquas, 7–8 m alta, June (originally May) 1905, Faurie 6602 (E–holo.), cf. Lauener & McKean in Notes Roy. Bot. Gard. Edinb. **41**: 176. 1983].

Salix hondoensis Koidz. in Bot. Mag. Tokyo **27**: 88 (1913) [Type: Japan. Honshu. Yamagata Pref. (Prov. Uzen). Minami-okitama-gun, Seki-no-sanson. G. Koidzumi s. n. (♀fl.). May 1910. (TI–lecto. designated by A. Kimura 1981)]; C. K. Schneid. in Sarg., Pl. Wilson. **3**: 110 (1916); Rehder in J. Arn. Arb. **10**: 114 (1929); Makino & Nemoto, Fl. Jap. ed. 2: 166 (1931).

Salix hirosakensis (H. Lév. & Vaniot) Koidz. in Bot. Mag. Tokyo **27**: 264 (1913), nom. illeg., ut "(Lévl.) Koidz."

Salix eriocarpa auct. non Franch. & Sav.: Tokubuchi in Bot. Mag. Tokyo **10**: page (122) (1896).

Salix pierotii auct. non Miq.: Skvortsov, Willows USSR: 113 (1968), p. p. incl. syn. cit. *S. dolichostyla*; Nedoluzhko in Charkevicz, Pl. Vascul. Orient. Extr. Soviet. **7**: 169 (1995), p. p.

Japanese name: Shiro-yanagi.

subsp. **serissifolia** (Kimura) H. Ohashi & H. Nakai, comb. nov.

f. **serissifolia** (Kimura) H. Ohashi & H. Nakai, comb. nov.

Salix serissifolia Kimura in Bot. Mag. Tokyo **40**: 639 (1926), ut "*S. serissaefolia*" [Type: Japan. Honshu. Shizuoka Pref. (Prov. Suruga). prope Subashiri, pede Fujisan. A. Kimura 197 (♀fl.). 12 May 1924. (TI–holo.; TUS-K–iso.)].

Salix jessoensis subsp. *serissifolia* (Kimura) H. Ohashi in J. Jpn. Bot. **75**: 17 (2000), ut "*serissaefolia*"; H. Ohashi & Yonek. in J. Jpn. Bot. **81**: 38 (2006).

Japanese name: Kogome-yanagi.

f. **pendula** (Okuhara) H. Ohashi & H. Nakai, comb. nov.

Salix serissifolia Kimura f. *pendula* Okuhara in Fl. Nagano Pref.: 1507 (1997); T. Shimizu in J. Phytogeogr. Taxon. **46**: 114 (1998) [Type: Japan. Honshu. Nagano Pref. Hata-machi, Oshide. (SHIN 149851–holo.)].

Japanese name: Shidare-kogome-yanagi.

Seemen (1901) cited two specimens in the original description of *Salix dolichostyla* Seemen; Faurie 1259 and 1260. Hao (1936) selected the latter specimen as the type of the name and recorded it as "(Faurie) 1260 (type! ♂♀ in Herb. Berlin)". Hao cited male and female specimens. Ohashi (2001) regarded Hao's selection as lectotypification, but Faurie 1260 should be regarded as syntypes. We are searching duplicate specimens of Faurie 1259 and 1260 at the moment for further typification.

The type of *Salix jessoensis* Seemen has been recorded by Seemen (1903) as "Japan: Insel Jesso: Sapporo (Tokubuchi 1891, in Herb. Sapporo Agric. Coll.)", and Hao (1936) quoted the type as "Tokubuchi (type! ♂♀ in Herb. Berlin)". The specimens in B were syntypes, but no longer survive. There are three sheets designated merely as type in SAPS which is currently Herb. Sapporo Agric. Coll. (now the Herbarium in Hokkaido University Museum, Hokkaido University, Sapporo). They are Tokubuchi s. n. collected on 18 May 1891 and 15 Oct. 1891 in Sapporo, Prov. Ishikari (Fig. 1); Tokubuchi s. n. collected on 18 May 1891 and 7 June 1891 at Nakajima Park in Sapporo (Fig. 2); and Tokubuchi s. n. collected on 1 July 1891 at "Toyohira hen" in Sapporo. The first-listed sheet is composed of five branches of which three have male

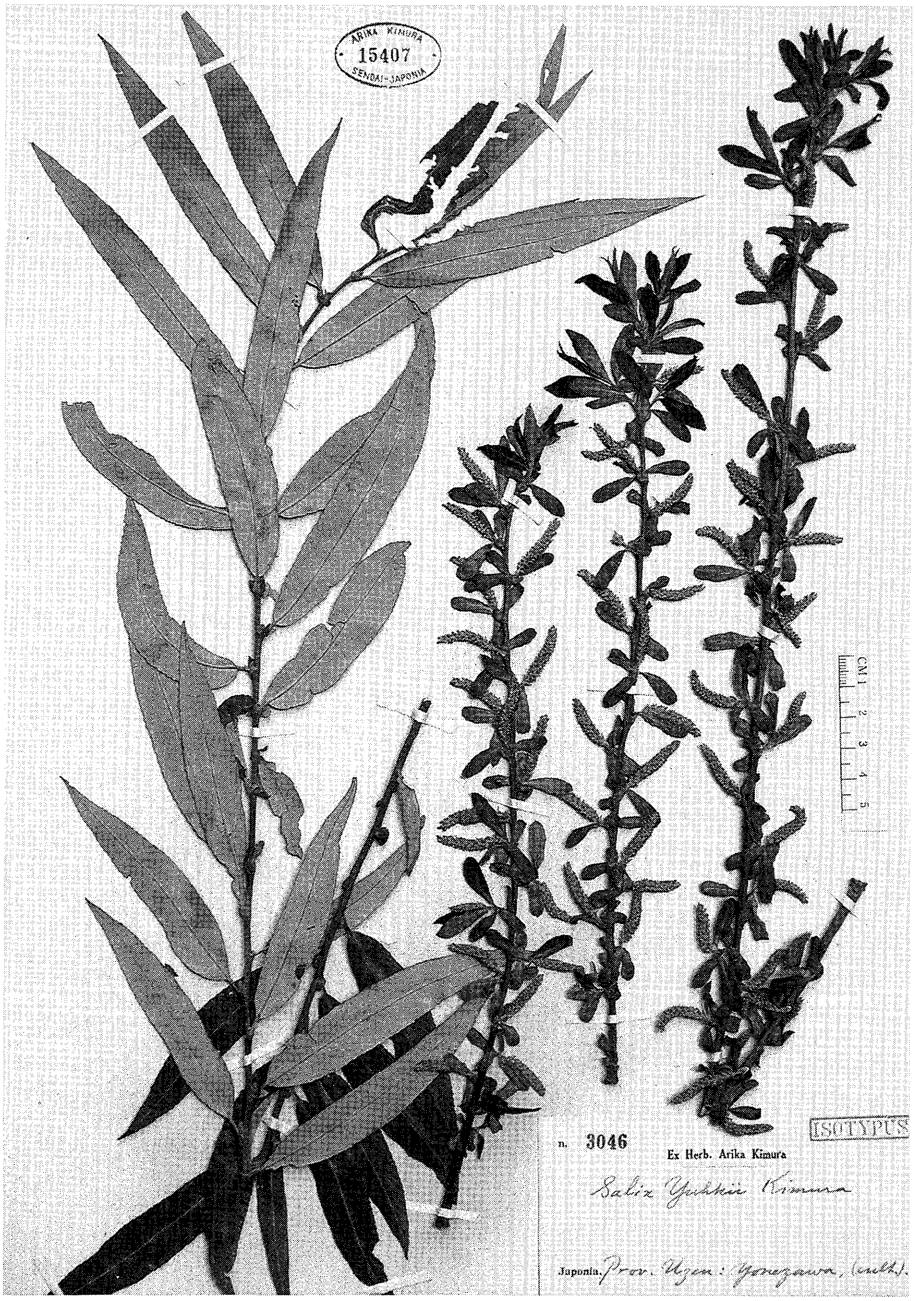

Fig. 3. *Salix* × *yuhkii* Kimura. Prov. Uzen: Yonezawa, (cult.). fol. 24 Sept.1949, fl. (isotype) 24 Apr. 1950, A. Kimura 3046 (TUS-K).

catkins and two have mature leaves, hence the three flowering branches must have been collected on 18 May 1981 and the two others on 15 October. The second-listed one is three branches of which two have female catkins and one fruits, accordingly the former were probably collected on 18 May 1891 and the latter on 7 June 1891. The third-listed one has two branches with fruits and mature leaves which probably correspond to the syntype of *S. jessoensis* Seemen of the fig. 41 in Hao (1936). We select the three branches with male catkins on the first specimen as lectotypes of *S. jessoensis* Seemen (Fig. 1). These branches are recognized to be collected by Tokubuchi from a single tree at the same time.

Salix dolichostyla is supposed to have produced two hybrids with *S. babylonica* L. The older name for the hybrids at the specific rank is *Salix* ×*lasiogyne* Seemen. Their names are as follows:

Salix ×lasiogyne Seemen, Salic. Jap.: 32, tab. 4. figs. A–C (1903), pro sp., excl. specim. ex Korea [Type: Japan. Kanagawa Pref. (Prov. Sagami). Yamakita. Faurie 3702 (♀). 8 May 1899 (KYO–lecto. designated by Kimura 1984)]; Kimura in J. Jpn. Bot. **59**: 271 (1984), as *Salix babylonica* L. × *S. serissaefolia* Kimura; H. Ohashi in J. Jpn. Bot. **75**: 34 (2000) & in Sci. Rep. Tohoku Univ. ser. 4, Biol. **40**: 374 (2001).

nothosubsp. **lasiogyne**

= *Salix babylonica* L. × *S. dolichostyla* Seemen subsp. *serissifolia* (Kimura) H. Ohashi & H. Nakai.

Japanese name: Shiro-sidare-yanagi.

nothosubsp. **yuhkii** (Kimura) H. Ohashi in J. Jpn. Bot. **75**: 34 (2000).

Salix ×*yuhkii* Kimura in Sci. Rep. Tohoku Univ. ser. 4, Biol. **18**: 544, fig. 1 (1950) [Type: Japan. Honshu. Yamagata Pref. (Prov. Uzen): Yonezawa, cult. A. Kimura 3046 (♀ fl.). 24 Apr. 1950. (TUS-K–lecto. designated by Kimura 1981)] as *Salix babylonica* L. var. *lavallei* Dode × *S. hondoensis* Koidz.

= *Salix babylonica* L. × *S. dolichostyla* Seemen subsp. *dolichostyla.*

Japanese name: Yûki-shidare.

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大橋広好[a]，中井秀樹[b]：シロヤナギの正名および種内分類群と関連雑種の学名

Ohashi（2001）はそれまでジャヤナギ *Salix eriocarpa* Franch. & Sav.の異名またはオオタチヤナギ *S. pierotii* Miq.の異名とされてきた *S. dolichostyla* Seemen を新たにシロヤナギ *S. jessoensis* Seemen の異名とみなした．しかし，*S. dolichostyla* Seemen（1901）は *S. jessoensis* Seemen（1903）よりも2年早く発表されているので，この学名がシロヤナギの正名となる．*S. dolichostyla* は葯が黄色であると原記載で明記されており，この点でシロヤナギと一致するが，赤であるジャヤナギやオオタチヤナギ（中国での記載による）と異なっている．

Salix dolichostyla は Aomori（leg. Abbé U. Faurie 6 May 1898, no. 1259, 1260）をタイプとして記載され，2点のシンタイプに基づいていた．Hao（1936）は no. 1260をレクトタイプとしたが，これには雄と雌の標本が混ざっているので，やはりシンタイプとみなすべきものであり，雄か雌のいずれかをレクトタイプと指定しなければならない．

Salix jessoensis Seemen のタイプは徳淵1891で札幌農学校にあると原記載に引用されている．これがホロタイプと考えられていたが，実際には徳淵永治郎によって1891年5月から10月の間に異なる3地点で採集された3枚5点の標本があり，これらはシンタイプに相当する．この中から1891年5月18日に採集された雄花序をつけた枝を *Salix jessoensis* のレクトタイプとした．

Salix dolichostachya var. *hirosakensis* H. Lév. & Vaniot は Faurie 6602（E）をタイプとする学名であり，*Salix dolichostyla* と同じく青森県から記載された．この変種を種とみなして小泉（1913）は *S. hirosakiensis* (H. Lév.) Koidz. とする新組み合わせを発表したが，この学名の下に同じ年でもより早く発表した同種の *S. hondoensis* Koidz. を異名として引用しており，これは不要名である．なお．*S. hondoensis* Koidz.は山形県から記載され，レクトタイプ G. Koidzumi s. n. May 1910. は東大にある．

シロヤナギとシダレヤナギの雑種の学名は種ランクでコゴメヤナギとシダレヤナギの雑種であるシロシダレヤナギ *Salix* × *lasiogyne* Seemen が先に発表されているので，シロヤナギとシダレヤナギの雑種であるユウキシダレは *Salix* ×*lasiogyne* nothosubsp. *yuhkii* (Kimura) H. Ohashi となる．

北海道大学総合博物館高橋英樹教授には *Salix jessoensis* Seemen のタイプを調べた際にお世話になった．京都大学博物館福田知子氏には *Salix dolichostyla* Seemen のタイプである Faurie 標本重複品が KYO にあるかどうか調べていただいた．お二人にお礼申し上げます．

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